

PATENT APPLICATION
Attorney Docket No. 5294.00

1 has been cancelled and a new independent Claim 40 has been provided and the dependency of Claims 22 through 39 have been corrected so as to be dependent upon new independent Claim 40. Claim 40 is the only independent claim in the application. Claims 12, 15, 17, 19, 20 and 21 have been amended to overcome the rejection under 35 U.S.C. §112. Applicant believes the amendments have obviated that objection.

The Examiner also rejected Claim 10 under 35 U.S.C. §112 because in lines 4 to 5 "the water becomes turbulent" was considered to be an indefinite term. It is respectfully pointed out that this is not an indefinite term as one of ordinary skill in the art would understand precisely what is meant by this claim expression. Reference is made to page 5 of the specification, lines 25 through 30, where it is noted that the spray of droplets becomes turbulent at a particular distance from the nozzle whereby there is no longer a water jet, but whereby the water droplets "float as it were." Claim 10 merely recites that the dirty surface being cleaned is at a distance from the spray of droplets which is less than the distance that the droplets become turbulent downstream of the nozzle. Accordingly, it is believed that Claim 10 is not indefinite.

The Examiner rejected all of the claims under 35 U.S.C. §103(a) as being unpatentable over J.P. '836 or Elmore or Meyer et al. in combination with Pacht (5, 531,383). As recognized by the Examiner, and as pointed out in the prior response, J.P. '836, Elmore and Meyer et al. do not teach the nozzle device set forth in the claims of the present invention. To rectify this deficiency, the Examiner turned to Pacht and

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stated that Pacht teaches a swivel jet assembly for a fluid distribution system that delivers high pressure fluid from a pressurized fluid source to an object to be cleaned. The Examiner pointed to the Abstract, column 2, line 55 to column 3 line 24, column 4 line 61 to column 5 line 7, column 7 line 63 to column 8 line 56, column 9 lines 3-25 and the claims.

It is respectfully pointed out that neither the specific portions of Pacht referred to by the Examiner nor the remainder of the disclosure teach or suggest the nozzle as set forth in the claims of the present invention. The Pacht reference discloses no more than a rotating nozzle working under high pressure and does not disclose or suggest a nozzle with coaxial bores wherein water and air under pressure respectively move. As recited in newly presented Claim 40, the nozzle must have coaxial bores where air and water move to a downstream portion which is narrower than the upstream portion and through a fluid port to squirt water in a spray of droplets. Pacht fails to disclose or suggest this structure. Pacht merely discloses a rotating nozzle assembly where water in a continuous stream is ejected under pressure through his nozzle assembly. Thus, there is no teaching or suggestion in either the basic references or in Pacht to obtain the claimed method of the present invention.

Moreover, it is respectfully pointed out, that Pacht discloses and teaches a nozzle working under high pressure, e.g., 10,000 psi or more, while applicant's invention is devoted to spraying minute droplets at significantly lower pressures. Thus, there is no motivation to turn to Pacht which, as pointed out above, does not have coaxial bores to provide both air and water to obtain fine droplets, to modify any of the

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nozzle structures shown in the basic references applied by the Examiner. It is axiomatic that there must be some suggestion in either the basic or secondary references to make the suggested combination. There is none in this case.

The Examiner also rejected Claims 1 to 10 under 35 U.S.C. §103(a) as being unpatentable over Lee et al. in combination with Pacht. As acknowledged by the Examiner, Lee et al. does not teach the nozzle assembly as claimed. The Examiner applied Pacht in the same manner as Pacht was used as the secondary reference in the prior rejection. As discussed above, Pacht fails to teach or suggest a coaxial nozzle to direct both air and water to obtain a spray of droplets. Pacht merely discloses a high pressure nozzle which provides only a continuous spray of liquid rather than spray in the form of droplets. Again, there is no teaching or suggestion in either Lee et al. or Pacht to make the combination as suggested by the Examiner.

In both of the rejections interposed by the Examiner, the Examiner concludes that one skilled in the art would adjust the pressure and the ratio of water to obtain optimum results or that one skilled in the art would use the Pacht assembly to improve the cleaning. It is respectfully pointed out that this rationale is more in the nature of obvious to try which is not a valid assertion when combining references under 35 U.S.C. §103. None of the prior art teaches the precise pressure relationships set forth in the dependent claims at issue and to clean the specific objects set forth in the dependent claims. As set forth in the specification, cleaning agricultural products, with a minimum volume of water has been a problem which



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has long plagued the agricultural industry especially in areas where fresh water is in short supply and must be conserved. There is no teaching or suggestion in any of the prior art to obtain these results by the claimed method.

Accordingly, in view of the above amendments and remarks favorable reconsideration and allowance of this application are respectfully requested.

Applicant's undersigned attorney may be reached in our Denver office by telephone at (303) 629-3400. All correspondence should be directed to our below listed address.

Respectfully submitted,

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